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LEAK DETECTION APPARATUS FOR A LIQUID CIRCULATION COOLING SYSTEM

Abstract of the Disclosure

A leak detection apparatus includes one or more detection devices that envelope the various pipe joints of a liquid circulation cooling system. In one approach, the detection devices include a pair of conductors separated by a wicking material impregnated with a crystalline salt that provides a low resistance electrical path between the conductors in the presence of a leak. In another approach, the detection devices include a pair of dissimilar metal mesh electrodes separated by an electrolyte-impregnated wicking material to form a water-activated battery that energizes an alarm in the presence of a leak. In either case, the electrodes and wicking material may be encased with a water-activated sealing material that hardens in the presence of a leak to contain the leakage.